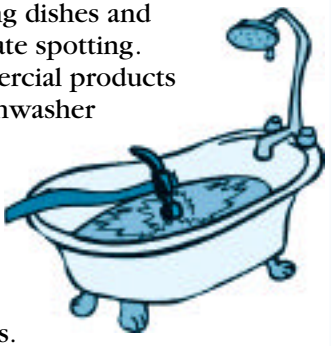
Water 101
Your Water at Home – Hard Water

Continued from Front

The minerals can clog faucet screens, form scale on showerheads,cause spotting on dishes,and form a scale on tiled shower walls.

If you find that hard water is an annoyance in your home,there are some things you can do to reduce its affects. Using a small amount of vinegar when washing dishes and glassware can eliminate spotting. There are also commercial products available for your dishwasher that will help. You should also follow the manufacturer's instructions on how to maintain your appliances and water-heating systems. Following good housekeeping practices and using laundry products designed for use with hard water will minimize its effects.



The U.S.Environmental Protection Agency has no health-based standard for water hardness, but does have a 'secondary'aesthetic standard of 500 milligrams per liter (mg/L) for total mineral content of which hardness is a subset. Hardness levels in Tucson's drinking water average about 121 mg/L*.

Have a question for Water 101 or a suggestion for a topic? Call us at ***791-4331*** *or email to* ***TW_Web1@ci.tucson.az.us****.*

*A milligram per liter is the same as one teaspoon in 1,302 gallons and is equal to 1 part per million. To convert hardness to grains per gallon,divide by 17.1

Your WATER Connection
News & Tips for Tucson Water Customers

Water 101
Your Water at Home
Hard Water

This month,Water 101 begins an on-going series about aspects of water quality and how they affect customers' daily lives. This month we'll talk about hard water.

Water that's naturally high in dissolved minerals such as calcium and magnesium is called hard water. Our water in Tucson is considered 'moderately hard' although it varies somewhat across the metropolitan area (look at the water quality map in this newsletter for details). You can tell how hard or soft your water is by seeing how easily soap lathers – the harder water is, the more difficult it is to create lather.

Our water is just hard enough to be a nuisance in the kitchen,bathroom and swamp cooler. The minerals in the water leave a buildup on coolers, appliances, sinks and toilets,and other places where we use a lot of water.

Continued on Back

On the Water Front

Drought,wildfires, changing weather patterns. It's the way things have been in Arizona and much of the southwest for the past several years.

Protecting our water resources has never been more important. It's only because of carefully planned and managed water resources that it's possible for us to live here in the desert.

For the good of our environment,efforts are underway in many parts of our state to limit groundwater pumping. Tucson is a leader in this effort – using more of our blend of recharged Colorado River water and groundwater is allowing us to let our environment recover from the many years that we were one of the largest cities in the nation that relied solely on groundwater. We're moving from the finite resource of groundwater to renewable water resources - lakes and the rivers that flow into them.

For Tucson,those renewable resources come from the lakes along the Colorado River in northwestern Arizona. The Central Arizona Project canal brings this water to us over 336 miles of desert. Along the way, the canal serves about 80 other customers.

The lakes on the Colorado – Lake Powell to the north, Lakes Mead, Mohave,and Havasu stretching south between Arizona and California – not only supply water to Tucson and other parts of Arizona,but are also tapped by Nevada and parts of California. These lakes are known for their recreation sites,but first and foremost they are there to store Colorado River water for use by millions of people.

Even as a growing number of cities,towns, agricultural areas,and Native American nations shut down wells and come to rely more on water from the Colorado, the River flows are dropping. The long-term drought in the watershed of the Colorado River, underway for several years,is predicted to continue into the foreseeable future.

That means our Colorado River lakes have become a 'buffer' against possible future water shortages. It's a very important safeguard considering Arizona alone takes nearly 5 trillion gallons of water a year from Lake Havasu.

Tucson Water is in the process of studying our long-term water needs and looking at options for where our water will come from in the decades ahead. As renewable water resources become more important,and more groundwater wells are shut down to allow our water table to recover, we need to remember how vital these lakes are to our quality of life and our future.

David V. Modeer
Director, Tucson Water

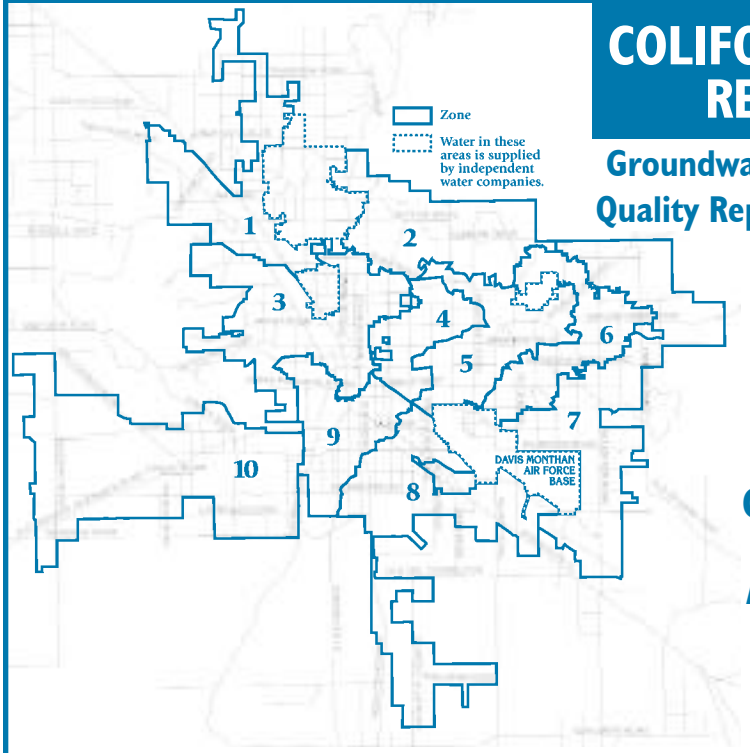
Clearwater Quality Report - July 2003

48	Sodium (ppm)
274.5*	Mineral Content (ppm)
105*	Hardness (ppm)
7.90	pH (units)
Neg*	Coliform Bacteria
0.97	Chlorine level average (ppm)
80.3	Temp (deg F)

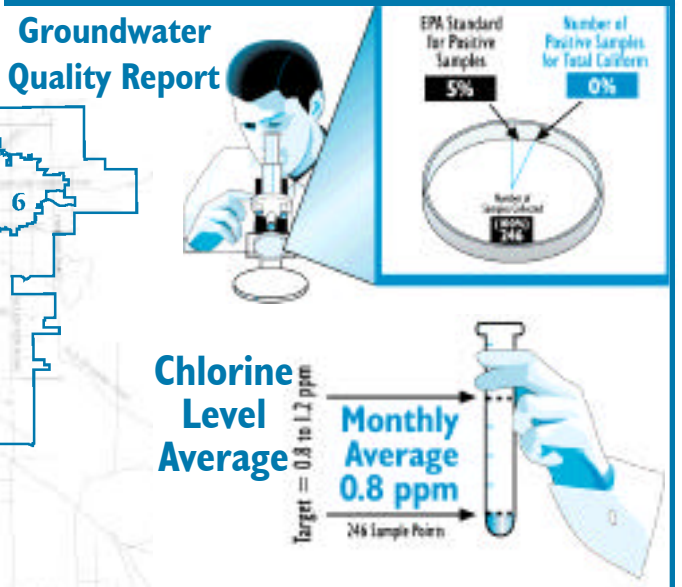
** Values for June 2003*

GROUNDWATER QUALITY REPORT - May 2003

	Water Quality Zone	1	2	3	4	5	6	7	8	9	10	System Wide
Sodium (ppm)	Average	59	45	45	38	37	40	33	42	44	40	41
	Range	*36-96*	*44-48*	*25-61*	*29-47*	*28-45*	*30-46*	*21-44*	*39-44*	*39-49*	*38-43*	*21-96*
Mineral Content (ppm)	Average	431	300	289	241	256	269	235	353	270	217	277
	Range	*175-591*	*273-324*	*197-465*	*186-309*	*171-320*	*214-306*	*181-299*	*291-437*	*214-426*	*214-220*	*171-591*
Hardness (ppm)	Average	248	125	120	102	108	124	114	186	104	77	122
	Range	*174-315*	*114-146*	*75-223*	*82-136*	*72-137*	*111-142*	*105-121*	*149-275*	*76-193*	*75-79*	*72-315*
pH (units)	Average	7.4	7.7	7.7	7.8	7.6	7.6	7.6	7.5	7.8	7.7	7.7
	Range	*7.2-8.0*	*7.3-8.0*	*7.2-8.1*	*7.3-8.0*	*6.6-8.0*	*6.8-8.1*	*6.7-8.0*	*7.1-7.9*	*7.4-8.1*	*7.3-7.9*	*6.6-8.1*
Temperature (deg F)	Average	80	84	82	86	83	83	83	83	86	84	84
	Range	*77-85*	*79-88*	*74-91*	*78-91*	*74-90*	*78-88*	*79-90*	*78-86*	*81-92*	*79-89*	*74-92*



COLIFORM BACTERIA TESTING RESULTS - May 2003



"PPM" means one part per million; 1 ppm = 1 teaspoon in 1,302 gallons

To give you a more accurate measurement of the water quality in your neighborhood, the Tucson Water service area has been divided into 10 zones based on differences in water pressure and water quality. For a detailed description of the zone boundaries, call 791-4331.

Conservation Corner:

Save Water / Save Dollars
Water Conservation Tips

Xeriscaping – the art of landscaping with low water use vegetation and water saving techniques – is a great way to have a beautiful yard and use water wisely. Each year the Arizona Department of Water Resources (ADWR), Tohono Chul Park, Tucson Water and others sponsor a Xeriscape Contest to honor the best local use of xeriscaping in a number of categories.

Christina Bickelmann of ADWR says the contest also helps to increase awareness of innovative landscaping and water efficiency and to encourage citizens to use xeriscaping to create beautiful yards.

Awards are given to recognize the work of professional landscapers as well as private owners who have used native and low-water-use plants, water harvesting, greywater and efficient irrigation systems in original ways.

The 2003 Xeriscape Contest award winners are:

HOMEOWNER AWARDS:

Homeowner First Place: Wendy Timm

PROFESSIONAL AWARDS:

Professional Residential - First Place: Joe Billings "The Landscaping Artist" for the Colville Residence

Professional Residential - Second Place: Marla Ruane, Greening Fine Gardens for the Schorr Residence

Commercial and Industrial - First Place Medians and Rights of Way: Greey-Pickett, AAA Landscape for their Streetscapes, Medians and Walking Trails in Dove Mountain

Commerical and Industrial - Second Place Medians and Rights of Way: Jay Hicks, AAA Landscape for Starr Pass

PUBLIC EDUCATION:

First Place: Harelson Elementary School

JUDGES' AWARDS - PROFESSIONAL CATEGORY:

Best Water Harvesting in a Small Space: Lesley Mansur, Pomeroy Residence

Best Use of Natives: Roberta Braegelmann - Sonoran Gardens, Luevano/Trinder Residence

JUDGES' AWARDS - HOMEOWNER CATEGORY:

Best Collection of Cacti and Succulents: Valarie Miller

Special Treatment of a Hillside or Slope: J.P. Bradley

Best Use of Water Harvesting: Deborah Tosline

HONORABLE MENTION:

Plant Collection: Kimber DeLorenzo

For more information about the 2003 Award Winners and their xeriscape projects visit ADWR's website at ***www.water.az.gov/adwr/***.

For more information on the 2004 contest, contact Christina Bickelmann at ADWR (520) 770-3816.

Visit the Tucson Water Web Site at http://www.cityoftucson.org/water

Your Water Connection **is produced by Tucson Water. To receive a copy, or to receive this information in Spanish, call 791-4331 or mail your request to: Tucson Water, Customer Information, P.O. Box 27210, Tucson, AZ 85726-7210.**

City of Tucson TTY number: 791-2639

Si usted desea este documento escrito en español, por favor, llame al 791-4331.